

Serial No.: 09/679,138  
Examiner: Joshua A. Kading

**In the claims:**

Please cancel claims 1, 4, 5, 12-18, 21, 22 and 29-31.

**Claim 1 (canceled)**

**Claims 2-3 (canceled)**

**Claim 4 (canceled)**

**Claim 5 (canceled)**

**Claims 6-7 (canceled)**

**Claim 8 (original):** A method for determining packet processing data, comprising the steps of:  
inputting a first lookup key including a first portion of a tuple;  
determining a nickname in response to the first lookup key, the nickname having a lower bit count than the first lookup key;  
outputting the nickname;  
inputting a second lookup key including a second portion of the tuple and the nickname;  
and  
outputting packet processing data in response to the second lookup key.

**Claim 9 (original):** The method according to claim 8, wherein the ones of outputting steps further include outputting respective ones of recursion indicators sufficient to indicate the need for inputting an additional lookup key.

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**Claim 10 (original):** The method according to claim 8, wherein the ones of outputting steps further include outputting ones of indicators, respectively, sufficient to indicate the absence and presence, respectively, of packet processing data.

**Claim 11 (original):** The method according to claim 8, wherein the ones of outputting steps further include outputting ones of indicators, respectively, sufficient to indicate the presence and absence, respectively, of a nickname.

**Claim 12 (canceled)**

**Claim 13 (canceled)**

**Claim 14 (canceled)**

**Claim 15 (canceled)**

**Claim 16 (canceled)**

**Claim 17 (canceled)**

**Claim 18 (canceled)**

**Claims 19-20 (canceled)**

**Claim 21 (canceled)**

**Claim 22 (canceled)**

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**Claims 23-24 (canceled)**

**Claim 25 (original):** A switching interface for a data communication switch, comprising:  
means for inputting a first lookup key including a first portion of a tuple;  
means for determining a nickname in response to the first lookup key, the nickname having a lower bit count than the first lookup key;  
means for outputting the nickname;  
means for inputting a second lookup key including a second portion of the tuple and the nickname; and  
means for outputting packet processing data in response to the second lookup key.

**Claim 26 (original):** The switching interface according to claim 25, further comprising means for outputting respective ones of recursion indicators sufficient to indicate a need for inputting an additional lookup key.

**Claim 27 (original):** The switching interface according to claim 25, further comprising means for outputting ones of indicators, respectively, sufficient to indicate the absence and presence, respectively, of packet processing data.

**Claim 28 (original):** The switching interface according to claim 25, further comprising means for outputting ones of indicators, respectively, sufficient to indicate the presence and absence, respectively, of a nickname.

**Claim 29 (canceled)**

**Claim 30 (canceled)**

**Claim 31 (canceled)**